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ABSTRACT

This paper provides an overview of the occupational regulation system, particularly licensure, in order that vocational educators may provide input into the regulative process and adequate information to students. The purpose and background of the licensure regulation process are traced. The function and workings of licensing boards are discussed. Licensing regulations that directly affect vocational education programs (those that pertain to education and training, experience, and examinations) are described. Licensing requirements that are unrelated to skill development and evaluation (residency, good moral character, and citizenship) are also covered. Mandatory continuing education, reexamination, and peer review are examined as strategies to ensure continuing competence of licensees. Several of the broader ramifications of licensure, including increased costs, restricted entry to jobs and training, limited scopes of practice, limited interstate mobility, and diminished opportunities for minorities and women, are discussed. Ten policy considerations and recommendations are included. An appendix lists various national governmental and non-governmental agencies supplying information about licensing and certification and state occupational and professional licensing agencies. (MN)

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Information Series No. 219

LICENSURE
What Vocational Educators Should Know

Written by

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January 1981

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FOREWORD

Licensure: What Vocational Educators Should Know provides an overview of the occupational regulation system, particularly licensure, in order that vocational educators may provide adequate information to students. Policy considerations are discussed and suggestions made regarding ways vocational educators can contribute responsibly to licensing practices.

This is one of six interpretative papers produced during the third year of the National Center's knowledge transformation program. The review and synthesis in each topic area is intended to communicate knowledge and suggest applications. Papers in the series should be of interest to all vocational educators, including teachers, administrators, federal agency personnel, researchers, and the National Center staff.

The profession is indebted to Dr. Benjamin Shimberg for his scholarship in preparing this paper, and to the Employment and Training Administration, U.S. Department of Labor, which has supported his research. Dr. William S. Ballenger, Michigan Department of Licensing and Regulation and Dr. Corrine Larson, Minnesota Department of Health, contributed to the development of the paper through seminar participation and subsequent review of the manuscript. Recognition is also due Dr. Ray Needham, Guilford Technical Institute, and Dr. Roy Butler, National Center for Research in Vocational Education, for their critical review of the manuscript. Staff on the project included Alta Moser, Shelley Grieve, Raymond E. Harlan, and Dr. Carol Kowle. Editorial assistance was provided by the Field Services staff.

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in Vocational Education

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EXECUTIVE SUMMARY

This paper provides an overview of the occupational regulation system, particularly licensure, in order that vocational educators may provide input into the regulative process and adequate information to students. The evolution of licensing boards is traced, including criticisms of board function and composition, and a discussion of the trend toward centralization. Training, education, and other eligibility determinants for licensing are explained. The Uniform Guidelines for Employment Testing are discussed with respect to the impact of licensing examinations on minorities and women. The American Bar Association's model licensing statute which addresses discrimination in the licensing of ex-offenders is presented. Mandatory continuing education, reexamination, peer review, and enforcement are examined as approaches to ensure continued professional competence of licensees. The Health Manpower Pilot Projects Act is cited as a model for determining when it is feasible to expand the scopes of practice for the auxiliary health professions. Interstate licensing practices are questioned. The paper concludes with a summary of policy considerations and recommendations, suggesting ways vocational educators can responsibly contribute to licensing practices and correct some of the negative effects that licensure has had on the field of vocational education.

INTRODUCTION

A large number of occupations in the United States are regulated to varying degrees through licensing and certification processes (See terminology on the following page). Approximately eight hundred occupations are regulated at the state government level alone. These range from such familiar occupations as cosmetologist, nurse, pharmacist, physician, and plumber, to such obscure ones as horseshoer and lightning rod installer (Green and Gay 1980). Although decisions made by legislators and licensing boards regarding occupational regulation frequently have a profound influence on vocational programs, vocational educators have seldom been involved in the decision-making process. They have tended to accept these decisions and to adjust their programs accordingly to ensure that their students are eligible for licensure.

Purpose

This paper has been written to provide an overview of the licensure regulation process in particular and to answer some of the questions that vocational educators are likely to ask. It is intended to sensitize vocational educators to licensing as a social institution and to make them more conscious of their responsibilities for disseminating licensure information to students, prospective students, and others concerned with the career decision-making process. It is intended to encourage vocational educators to be prepared to raise important licensure issues—appropriateness of the requirements, fairness of the examinations, reasonableness of the practice standards, and soundness of the approaches proposed for ensuring continued competency—when they are called on by legislators, educational authorities, and licensing boards to take positions on new licensing proposals or on proposed changes to existing laws.

Background

Contrary to popular belief, most licensure in the United States did not come about as a result of public demand to get rid of quacks and charlatans. It has evolved through the efforts of professionals and artisans seeking higher pay and job security. In the United States, most licensure laws have resulted when leaders of occupational groups developed proposals and lobbied for their adoption in the state legislatures. In addition to promoting a certain social status for practitioners, licensure has received general public support because it has been perceived as a form of consumer protection—a vehicle for identifying competent practitioners to the public by screening out the incompetent, for the purpose of protecting the public's health, safety, and welfare.

SOME TERMINOLOGY

The terminology used in the regulation of occupations is often bewildering. Local, state, and federal government agencies license certain occupations, but they certify and register others. To confuse matters further, many nongovernmental agencies—such as trade and professional organizations—also “certify” practitioners in various occupations. This paper deals primarily with licensed occupations, but readers should be aware of what the various terms mean and how they differ from one another.

Licensing (Practice Control)

Licensing is a process by which an agency of government grants permission to an individual to engage in a given occupation upon judging that the applicant has attained the minimal degree of competence required to ensure that the public's health, safety, and welfare will be reasonably well protected. Thus, licensing makes it illegal for anyone who does not hold a valid license to engage in the occupation or profession covered by the law. Licensing is by far the most restrictive type of occupational regulation since the power to grant or withhold a license can be used to deny individuals the opportunity to earn their livelihoods in their chosen occupations.

Before a license is granted, an applicant must meet certain requirements set forth by law. These usually include training and experience, minimum age, years of formal education, a period of residence within the state, and evidence of good moral character. As a rule, only those who satisfy stated prerequisites are allowed to take the licensing examination.

Registration

Registration is a very general term whose meaning can be ascertained only within a specific context. For example, a registered nurse or pharmacist is actually licensed. The term is sometimes used interchangeably with statutory certification. Most frequently, however, a registration law merely requires an individual to list his or her name and address with a government agency and does not include any standard of competence. Thus many municipalities use registration as a way of keeping track of door-to-door salespersons, peddlars, and operators of games of chance.

Certification (Title Control)

Certification is the process by which a governmental or nongovernmental agency grants authority to an individual who has met predetermined qualifications to use a specified title.

- *Governmental Certification* is sometimes called statutory certification or registration. Unlike licensure, a certification law does not prohibit individuals from engaging in the regulated occupation. However, it prohibits anyone from claiming to be certified or registered if they have not met the state standards. These standards usually include meeting training and experience requirements and passing an examination.
- *Nongovernmental (voluntary) Certification* is not based on law. Rather it usually comes about as a result of a desire on the part of practitioners in a given field to grant recognition to those who have met some standard. Such practitioners create organizations to set standards, review qualifications, examine applicants, and grant certificates to those who qualify. For example, the National Institute for Automotive Service Excellence (NIASE) examines auto mechanics in such areas as tune-up, engine overhaul, front end, brakes, and electrical systems. Those who pass may call themselves certified auto mechanics in their specialty areas and may display the NIASE insignia. Mechanics who are not certified may legally provide services to the public. However, they may not display the NIASE insignia which is protected by copyright.

During the late 1960s and the 1970s, social pressures have raised a number of issues about licensing. Increased demands for licensure by occupational groups constitute one set of pressures. Many groups seek licensure in the belief it is a sign of professionalism, and, once status is achieved, other benefits will follow. Some groups seek licensure when they find they are prevented by law from performing the functions of an already-established occupational group for which they, too, have been trained. Another source of pressure for licensing is the demand by third party payors, such as Medicare or health insurance companies, that providers of services be recognized as competent by a state agency or by a creditable nongovernmental certifying body. Yet at the same time, pressures stemming from an increased interest in and concern for public accountability have generated a more critical attitude toward licensing and the licensing boards themselves.

As a result, several government agencies have begun to examine the social effects of licensure. The Federal Trade Commission, for example, charged that some boards were interfering with competition by prohibiting price advertising. The Antitrust Division of the U.S. Department of Justice initiated legal actions against certain professional associations and licensing boards for anticompetitive activity such as prohibiting competitive bidding (Geilhorn 1976). In addition, the U.S. Department of Labor supported studies that called attention to ways in which licensing sometimes restricts entry into certain occupations and limits the mobility of skilled workers and professionals. In thirty-four states, legislators have passed "sunset" laws for the purpose of getting rid of government agencies and programs that are not functioning as intended or have outlived their usefulness. Licensing boards have been a prime target of these sunset reviews.

These actions and concerns have served to focus attention on licensing as never before. Many legislators have begun to reexamine the whole concept of licensure: how it operates, who it benefits, what the social costs may be, and how the system can be made more responsive and more accountable to the public. Consumers are asking, "Who benefits the most from licensing, the public or members of occupational and professional groups? How can we be assured of getting our money's worth from the goods and services we buy?" Vocational educators also have a stake in licensure decisions based on a related set of questions: "Have studies been made to ascertain the knowledge and skills that are most critical for protecting the health and safety of the public? Are training requirements consistent with contemporary practice, or do they represent the practices of a bygone era? Has consideration been given to individual differences that might enable some students to acquire the needed competencies at a faster rate than other students?"

THE SYSTEM

In order to prepare students adequately for those occupations regulated by licensure, vocational educators need to understand the licensure system and convey that information to their students. In addition to knowing what requirements their students will have to meet, they should understand how licensing boards use their rule-making authority. And if vocational educators are to become more involved in decisions that affect their programs, it is important that they have a clear understanding of how occupational groups get licensed and be able to discern the respective interests of the various parties involved. Improving the licensure process to the satisfaction of one party—either vocational students and trainees, or public vocational education institutions, or private vocational education institutions, or occupational groups seeking licensure, or occupational groups already licensed, or businesses, or consumers—does not necessarily mean a cost-effective or improved situation will result for any of the other parties.

Licensing Boards

Once a licensing law has been passed, responsibility for implementing the law is usually given to a board composed exclusively or predominantly of members of the occupational group in question. These boards exercise a wide range of powers that often determine the nature or duration of training, as well as the content of the licensing examination. In other words, these boards decide what constitutes minimum competency for practice.

In order to understand the power of licensing boards, one needs to understand the role that administrative agencies play in modern government. In an earlier era, legislative bodies passed laws and relied on the executive branch to carry them out. As our society grew more complex, however, legislators found that they had neither the time nor the expertise to include all the fine details in every law. The best they could do on many topics was to formulate general policies and standards and then turn them over to an administrative agency to work out the details. Thus administrative agencies, in a sense, became extensions of the legislature because they could promulgate rules and regulations that had the force of law. They were also given authority to implement laws and to exercise sanctioning powers over individuals, similar to those of a court. A special type of law, known as administrative law, sets forth the ground rules by which administrative agencies must function in order to ensure orderly procedure and equal treatment for all.

In the area of licensure, legislators have often granted licensing boards a high degree of autonomy. The boards have been left to stand alone, not attached to any department or agency of government. In theory, these autonomous boards have been accountable directly to the legislature, but in practice they have carried out their functions as they saw fit, with virtually no oversight. They have tended to be self-contained units—processing their own paperwork; preparing, administering, and grading their own tests; and conducting their own investigations. Their feelings of independence have also been heightened by the fact that most boards are supported by income derived from licensing fees. Unlike other agencies of government, they usually do not have to appear before the legislature to ask for funds or to justify their expenditures.

As one would expect, such a high degree of autonomy has been criticized on several counts (Roederer and Shimberg 1980). Such boards are wasteful, say some critics. By remaining separate and apart, there is no practical way for them to share facilities, staff, and other resources. Others note that under such an arrangement, boards are not as accountable as they should be, and are not subject to the same checks and balances that characterize other agencies of government.

Efforts to curb the powers of boards by establishing "umbrella" agencies began as far back as 1892 when all licensing boards in New York were placed under the Board of Regents. Similar agencies were established in Illinois (1917), Washington (1921), Pennsylvania (1923), and California (1929). A 1969 study revealed that there were sixteen states that had central licensure agencies performing all or some licensure functions (Council of State Governments 1969).

Ten years later, the number of states with central licensure agencies had increased to thirty-one (Roederer and Shimberg 1980), confirming a distinct trend toward increased centralization. In seven states, the central agency performed only routine administrative functions. In seventeen states, while the boards were essentially autonomous, the central agency had authority for such functions as budgetary, personnel, and disciplinary activities. By that time a major break with traditional autonomy had also occurred in six other states. In Connecticut, Florida, Utah, and Washington, many actions of the boards were subject to review by the central agency. In the other two states, New York and Illinois, the central agency had complete licensure authority; but, the boards existed only in an advisory capacity.

Just as the autonomy of boards has come under scrutiny, so, too, has the composition of boards been challenged as favoring the interests of an occupational group over those of the public. As noted earlier, licensing boards have been made up entirely or predominantly of members of the occupational groups. Legislators have seen nothing wrong with this arrangement because board members are expected to play an important role in setting entry standards; screening applicants; developing and grading examinations; promulgating rules

governing professional practice and conduct; and deciding disciplinary cases involving licensees accused of incompetence, negligence, unprofessional conduct, or dishonesty. Occupational members bring to the board a knowledge of the occupational field and an awareness of the problems and issues facing the occupation.

With the rise of consumerism, however, the public has demanded a greater and more direct voice in the decision-making process of boards. Those who have wanted public members on boards argue that since board actions often affect the cost and quality of services, consumers have a right to be heard when crucial decisions are being made. The role public members actually play depends in large measure on who gets appointed, how prepared they are, and how much support they get.

Experience with strictly political appointees as public members has not been favorable. Because many of them have lacked the background for the job and the commitment to serving as consumer representatives, they have found the meetings boring, or have felt that they had little to contribute. Consequently, many have stopped attending the meetings. Those political appointees who have continued to attend have often been so awed by the credentials of the professional members that they seldom question their judgments or recommendations. In either case, most parties of interest have not been well served.

At the urging of consumer and public interest groups, governors in several states have begun to recruit and screen public member appointments more carefully, seeking individuals who are interested in regulation and have backgrounds that will enable them to understand and contribute to the work of their boards. Although vocational educators have often been appointed as occupational representatives to licensing boards (such as nurse educators on nursing boards), their potential contribution as members from the public sector appears to have been overlooked. There is no reason that a nurse educator, for example, should not be designated as a public member of a cosmetology board or that a home economics instructor should not be appointed to an optometry board. Vocational educators, more often than members of the general public, are likely to raise critical issues related to training, experience, and other indicators of competency.

Regardless of their backgrounds, all public members need to be oriented to their duties and responsibilities and be given support services that will conserve their time and increase their effectiveness. An effort should also be made to sustain positive attitudes by reminding members why they are there and what public members have accomplished on other boards. Public members also need to maintain communication with consumer and public interest groups so that they can better reflect their viewpoints and attitudes in deliberations affecting the public.

Licensing Eligibility Determinants

Occupational regulations vary from board to board, but the ones most often specified are the content and duration of training programs, the type and level of skills to be taught, the qualifications of instructors, and the amount of experience that trainees must acquire. These specifications and requirements ultimately set the standards by which a person's eligibility to work or serve in an occupation or profession is determined.

Licensing regulations that directly affect vocational education programs are those that pertain to education, training, experience, and examinations. Other requirements important when counseling individual students relate to residency, citizenship, and good moral character. The following is a brief discussion of some of the requirements commonly found in licensing laws.

Education and Training

Responsibility for curricula and training programs has traditionally been assumed by licensing boards. Their involvement with training may have stemmed from the fact that many state departments of education have been weak in monitoring the quality of trade and professional training. Licensing board members have felt that the only way to be certain that practitioners in training receive a thorough grounding in an occupational field is to have the licensing board become directly involved in designing curricula, in setting institutional and program standards, and in conducting the approval process. On some occasions licensing boards have even specified types of equipment, minimum space requirements, and teacher-student ratios.

This approach is characterized in the nursing profession, where nearly all state boards have the responsibility for establishing curriculum requirements and for approving educational programs. The regulations may be quite broad and general, but these may also be accompanied by guides that indicate in considerable detail which topics need to be covered, specific objectives for each topic, and even suggested course titles. Considerable controversy exists within the nursing field as to whether state boards of nursing should be handling program approval or whether such approval should be the responsibility of state education authorities. In New York, program approval responsibility rests with the state department of education, but in all other states it is the nursing boards that establish the curriculum and approve the programs.

Not only do licensing boards set standards for licensure, but they may also specify who is eligible for training, usually by stating how old the trainees must be and how many years of schooling they must have completed before they can enter training programs. Minimum educational requirements are sometimes given in the belief that such requirements will discourage potential licensees from leaving school early. Or they may be included in the belief that individuals with less than the required amount of schooling will not be able to complete the

training successfully. The truth is, however, that neither of these arguments has anything to do with an applicant's ability to do the job. Encouraging people to remain in school may be a socially desirable goal, but making it a requirement for licensure is not an appropriate way to accomplish that objective. If some minimal level of education is deemed essential for successful completion of a training program, that requirement should be made a prerequisite for admission to training. Once a person has successfully completed training, however, an educational requirement would appear to be no longer relevant.

Training requirements are usually job related, and, therefore, often more pertinent to student needs than are some education requirements; yet the duration of training may still represent an arbitrary judgment. For instance, in certain trade occupations such as electrical work or plumbing, the time requirement for apprenticeship may be influenced by a union desiring to limit the number of apprentices or by an employer desiring to recoup some of the training costs. In such cases, the time period of apprenticeship training may bear little relationship to the actual length of time required for apprentices to acquire entry level skills.

In the field of cosmetology, for one, licensing boards have customarily been so prescriptive with respect to facilities and curriculum, that they often specify precisely how many clock hours must be devoted to each topic in the curriculum. They even specify the number of shampoos and sets that each student must perform. Elaborate record keeping is required of schools to document that they have adhered to licensing board requirements, and students are not permitted to take the licensing examination until all requirements have been met.

Oregon is the only state where responsibility for establishing standards and approving cosmetology programs has been shifted from the cosmetology board to the state department of education. The licensing board has decided that such aspects as the hairstyling skills of cosmetologists can best be handled by the schools and the marketplace. As a result, the board examination focuses exclusively on the health and safety aspects of cosmetology. The Oregon board has also broken with current practice elsewhere in the country by permitting students to take the licensing examination upon completion of an approved program, regardless of the number of hours spent in training.

Dr. John Chilson, a psychologist-educator who owns a cosmetology school in Hillsboro, Oregon, decided to take advantage of this liberal rule to institute a competency-based curriculum. While all other schools in the state still require students to spend 2,500 hours in training, Chilson's students may conceivably complete their training in half that time. As soon as students master a skill, they are allowed to move on to the next one. This is a sharp departure from the lockstep curriculum which requires every student to spend a fixed amount of time on each topic, regardless of individual differences in effort or learning ability. According to Chilson (1980), the earning powers of graduates of his

program are equal to or better than those of graduates of traditional programs. Moreover, he stated that a survey revealed that employers consider his graduates to be just as competent as those trained elsewhere.

Experience

In a number of fields, such as nursing or physical therapy, clinical experience is acquired as part of following the curriculum. In many of the skilled trades, experience is gained through apprenticeship. In other fields, however, the training itself may be highly theoretical so that trainees are expected to gain experience after they have completed formal training by working under the supervision of a licensed practitioner.

Legislatures that have incorporated experience requirements into licensure laws seem to have done so on the case-by-case basis, without regard to similarities among occupations. In California, for example, a dispensing optician who fits and sells eyeglasses upon the prescription of an optometrist or an ophthalmologist, must possess five years of experience prior to licensure. Yet a hearing aid dispenser, who diagnoses hearing disorders and fits and sells hearing aids, need not possess any experience whatsoever.

In an effort to determine the reasonableness of prior experience as a requirement for licensure, Cathcart and Graff (1978) evaluated each of the fifty-eight licensed occupations in California in terms of the following three factors:

- Seriousness of impact on consumer
- Need for discretion on the part of the licensee
- Need for additional practical training beyond formal education courses

Numerical values were assigned to each of these factors to designate degree of importance: 3 equaled a substantial amount; 2, a moderate amount; 1, a slight amount; and 0, no amount. Seriousness of impact on consumers was considered to be the most important factor and it was given a weight of 1.5, while the other two were given a weight of 1.0. The highest numerical score an occupation could get was 10.5, a score level indicating that (1) the work had a serious impact on consumers; (2) the workers had to exercise considerable discretion; and (3) while needed, almost no practical training had been required of workers during the period of education and training for that occupation. Cathcart and Graff assumed that if some amount of experience might be justified it would be in those occupations scoring at the high end of the rating continuum.

Data revealed in table 1 (Experience Requirements for Health Professions) raise some interesting questions. Cathcart and Graff stated that if dentists, registered nurses, veterinarians, chiropractors, hearing aid dispensers, podiatrists

and registered social workers (all 5.5 to 6.0) need no experience for licensure, it would seem that pharmacists, speech pathologists, audiologists, and dispensing opticians (5.5 to 6.0) should be similarly treated.

Among nonhealth occupations (table 2), these researchers called attention to the fact that construction inspectors, funeral directors, insurance adjusters, pest control field representatives, and geologists all had ratings of 5.5. This would seem to indicate that these occupations have roughly comparable experience requirements. In reality, however, the required number of years for these fields range from zero to seven years. The authors could find no discernable rationale for the randomness of the requirements.

Despite the confusion and contradictions inherent in their findings, Cathcart and Graff do not argue for the abolition of the experience requirement. Rather, they suggest that more refined procedures be developed to determine appropriate indicators of experience including the length of time necessary to achieve the required competency level.

Examinations

Anyone seeking licensure is usually required to pass an examination in order to demonstrate competence. Responsibility for examining applicants rests with licensing boards. In some occupations, board members assume responsibility for preparing, administering, and grading examinations; they decide what shall be covered on licensing exams, how much emphasis shall be given to various topics, and what standards shall apply in determining acceptable performance. In other occupations, boards rely on a central agency to handle all aspects of their testing.

Licensing exams, along with those used for employment and promotion, have received a great deal of criticism, the major one being the lack of adequate validation of the tests (Shimberg 1972). Evidence that a test measures what it is supposed to measure—competence for the job or occupation in question—is often lacking. The potential for discrimination through testing is also an issue. Several federal agencies concerned with discrimination in employment have developed "Uniform Guidelines for Employment Testing." Although there is some controversy as to whether or not these guidelines are legally binding on licensing agencies,* they nevertheless provide standards which boards should consider in evaluating the fairness and the technical qualities of their tests. The Uniform Guidelines recognize two types of validity: criterion-related validity and content validity.

*The Uniform Guidelines are found in 43 Federal Register 38,308 (1978). See pertinent Supreme Court decisions in *Washington v. Davis*, 426 U.S. 229 (1976) and *National Education Association v. South Carolina*, 434 U.S. 1026 (1978).

TABLE 1
EXPERIENCE REQUIREMENTS
FOR HEALTH PROFESSIONS

Profession	Total Points	Experience Requirement (beyond education requirements)	Impact (1.5 Multiplier)	Discretion	Lack of Practical Training
Osteopaths	8.5	1 year	(3) 4.5	3	1
Physicians	8.5	1 year	(3) 4.5	3	1
Marriage, Family, and Child Counselors	8	2 years	(2) 3	3	2
Psychologists	8	2 years professional experience, at least 1 year after obtaining Ph.D.	(2) 3	3	2
Clinical Social Workers	7	2 years	(2) 3	2	2
Educational Psychologists	7	3 years full-time experience as credentialed school psychologist. 1 year's credit for approved internship	(2) 3	2	2
Chiropractors	6	0	(2) 3	2	1
Dentists	6	0	(2) 3	2	1
Nursing Home Administrators	6	0	(2) 3	2	1
Pharmacists	6	1500 hours practical experience	(2) 3	1	2
Podiatrists	6	0	(2) 3	2	1
Registered Nurses	6	0	(2) 3	2	1
Registered Social Workers	6	0	(2) 3	2	1
Speech Pathologists & Audiologists	6	9 months full-time, or 18 months part-time	(2) 3	2	1
Hearing Aid Dispensers	5.5	0	(1) 1.5	1	3
Registered Dispensing Opticians	5.5	5 years	(1) 1.5	1	3
Veterinarians	5.5	0	(1) 1.5	3	1
Optometrists	5	0	(2) 3	1	1
Acupuncturists	4.5	0	(1) 1.5	2	1
Psychology Assistants	4.5	0	(1) 1.5	1	2
Physical Therapists	4	0	(2) 3	0	1
Physician's Assistants	3.5	0	(1) 1.5	1	1
Psychiatric Technicians	3.5	0	(1) 1.5	1	1
Registered Dental Assistants	3.5	0	(1) 1.5	1	1
Registered Dental Hygienists	3.5	0	(1) 1.5	1	1
Trainer, Guide Dogs for the Blind	2.5	0 (if training received in school)	(1) 1.5	1	0
Licensed Vocational Nurses	2.5	0	(1) 1.5	0	1
Nurses—Midwives	2.5	0	(1) 1.5	0	1
Animal Health Technicians	2.5	0	(1) 1.5	0	1
Physical Therapy Assistants	2.5	0	(1) 1.5	0	1

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TABLE 2
EXPERIENCE REQUIREMENTS
FOR NONHEALTH PROFESSIONS

Profession	Total Points	Experience Requirement (beyond education requirements)	Impact (1.5 Multiplier)	Discretion	Lack of Practical Training
Engineers	10.5	6 years (4 year college degree counts as 4 years)	(3) 4.5	3	3
Architects	9.5	8 years (5 year approved architect degree satisfies 5 years)	(3) 4.5	3	2
Contractors	8	4 years	(2) 3	2	3
Employment Agencies	9	1 year	(2) 3	2	3
Private Investigators	8	2 years	(2) 3	2	3
Pest Control Operators	6.5	2-4 years (depending on branches)	(1) 1.5	2	3
Accountants	6	2-4 years (depending on educational background)	(2) 3	2	1
Cemetery Brokers	5.5	2 years	(1) 1.5	1	3
Cemetery Salesmen	5.5	0	(1) 1.5	1	3
Collection Agency Operators	5.5	1 year	(1) 1.5	1	3
Construction Inspectors	5.5	4-5 years	(1) 1.5	1	3
Field Representatives (Pest Control)	5.5	6 months	(1) 1.5	1	3
Funeral Directors	5.5	0	(1) 1.5	1	3
Geologists	5.5	7 years (B.S. in the field counts as 2 years. Up to 2 years for graduate work)	(1) 1.5	1	3
Geophysicists	5.5	7 years (B.S. in the field counts as 2 years. Up to 2 years for graduate work)	(1) 1.5	1	3
Insurance Adjusters	5.5	2 years	(1) 1.5	1	3
Landscape Architects	5.5	6 years (4 year degree from board approved program = 4 years)	(1) 1.5	2	2
Nurses Registries	5.5	2 years (experience in personnel)	(1) 1.5	1	3
Private Patrol Operators	5.5	1 year	(1) 1.5	1	3
Repossessors	5.5	1 year	(1) 1.5	1	3
Fabric Care	4.5	0	(1) 1.5	0	3
Embalmers	3.5	2 years (disposition of 100 human bodies)	(1) 1.5	0	2
Barbers	2.5	12-15 months	(1) 1.5	1	0
Cosmetologists	2.5	0	(1) 1.5	1	0
Electrologists	2.5	0	(1) 1.5	1	0
Certified Shorthand Reporters	1.5	0	(1) 1.5	0	0
Cosmeticians	1.5	0	(1) 1.5	0	0
Manicurists	1.5	0	(1) 1.5	0	0

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Criterion-related validity. This type of validity is sometimes called "predictive validity" because the test itself predicts performance. In order to establish this type of validity, one must be able to show statistically that a positive relationship exists between scores on the test (or other predictor) and performance on the job. Thus, if a test is supposed to predict success in accounting, one would expect those who score high on the test to do well on the job (get high ratings), and those who do poorly on the test to get low performance ratings.

Content validity. This type of validity depends on the degree to which the questions on a test may be accepted as representative of performance within its specifically defined content domain. If the test is to be used for making a licensing decision, the relevant content may be performance (such as testing a pilot on a simulator) or a sample of the knowledge, skill or ability judged by the licensing board to be the level of performance necessary to adequately protect the public's health, safety, and welfare.

Unlike criterion-related validity, content validity does not depend on statistical evidence for support. Rather, it depends on evidence that the test is job related and that it measures important job characteristics which are related to safe practice. Conducting a job analysis is one way to identify these critical job components and ensure job relatedness. Another way of doing this is through the pooled judgment of experts.

The quality of the questions used in licensing exams has frequently been criticized because licensing board members who prepare the questions seldom have any training in item writing. It is not uncommon to find ambiguous or trick questions on licensing tests, as well as questions about obscure points (Shimberg 1972). Some states have endeavored to remedy this situation by hiring consultants to work with boards on all aspects of test construction. Others have met this challenge by deciding to participate in national programs where test development is usually in the hands of people trained in measurement.

Requirements Unrelated to Skill Development/Evaluation

Even though the following requirements do not relate to skill development per se, vocational educators need to be aware of them if they are to inform their students fully about licensure criteria.

Residency. The U.S. Supreme Court has on several occasions ruled that residency requirements are invalid.* Nevertheless, they are still found in many licensing statutes. Although it is unlikely that many attorneys general would

**Graham v. Richardson*, 403 U.S. 365 (1971).

attempt to enforce a residency requirement, some applicants may be discouraged from applying if they do not meet the requirement. It would therefore seem preferable to delete residency requirements from licensure statutes.

Citizenship The U.S. Supreme Court has on a number of occasions ruled that states may not prevent legal resident aliens from engaging in ordinary occupations and professions of the community.** The U.S. Supreme Court has said that state laws that cause aliens to be disadvantaged are highly suspect and can be justified only if the state can show that its differential treatment of aliens is necessary to satisfy a legitimate and important state interest. In those cases that have come before the U.S. Supreme Court, states have been unable to demonstrate that lack of citizenship prevented such individuals from competently and responsibly practicing their chosen professions.***

Good moral character. The good moral character requirement, or its equivalent, is found in most licensing laws. This requirement works a special hardship on those with criminal records because many boards interpret such a record to mean that the applicant lacks good moral character and therefore does not deserve to be licensed.

The American Bar Association (ABA) has noted that in the absence of standards regarding ex-offenders, licensing boards often fail to take into account factors such as: (1) the age of the individual and surrounding circumstances at the time of the offense; (2) the length of time elapsed since the unlawful activity; (3) the subsequent rehabilitative efforts of the individual; and (4) whether the crime committed by the applicant pertained to the occupation for which licensure is sought. The ABA report stated, "Without such guidelines, broad discretion is left to persons on the licensing board or agency to exercise their authority in such a manner as to arbitrarily reject any applicant, particularly the former offender, whom they consider unfit" (Hunt, Bowers, and Miller 1974).

The ABA has proposed a model licensing statute that would require a licensing agency (1) to not consider criminal records which have been annulled or expunged, (2) to not use certain records for licensing purposes (e.g., arrest records not followed by a conviction), and (3) to directly relate a record of a conviction, if it is considered, to the occupation or profession for which licensure is sought. Many states have heeded the advice of the ABA Ex-Offender Project. A 1977 survey found that twenty-six states had passed legislation removing at least some of the impediments to the employment of ex-offenders.

**See *Shapiro v. Thompson*, 394 U.S. 618 (1969); *Keinan v. Board of Law Examiners*, 317 F Supp. 1350 (EDNC 1970); *Hinclin v. Orbeck*, 437 U.S. 518 (1978).

***In *re Griffiths*, 413 U.S. 717 (1973) the court ruled that admission to the Connecticut bar may not be made to hinge on citizenship. In *Sugarmán v. Douglas*, 413 U.S. 634 (1973) the court ruled that citizenship may not be made a prerequisite of eligibility for civil service appointment in New York.

Continued Licensee Competence

Although the general public assumes that licensing boards monitor the competence of all licensees, this is clearly not the case (Shimberg 1980). They do decide disciplinary cases involving licensees accused of incompetence, negligence, unprofessional conduct and dishonesty, but historically, licensing boards have concerned themselves with initial competence only. They screen applicants with great care to make sure they have had the requisite training and experience, and can pass a licensing exam.* However, once an individual has been licensed, no further checks are made to ascertain whether licensees have maintained their skills, kept up with new developments, or still possess the physical attributes (such as good vision or physical coordination) required for safe performance. Thus the public has no real assurance that the licensed practitioner to whom they entrust themselves is, in fact, still competent. A number of strategies for ensuring continued competence have been proposed or initiated.

Mandatory Continuing Education

This strategy is based on the assumption that while most licensees voluntarily participate in continuing education (CE) as a professional obligation, some do not and it is these practitioners who are the most likely to lack competence. By requiring all licensees to take a certain number of hours of continuing education, the argument runs, competence of all licensees can be assured. The mandatory continuing education approach has been strongly advocated by professional groups. They have succeeded in securing legislation in every state, making CE a condition of license renewal for one or more occupations. Table 3, compiled by Professor Louis E. Phillips, provides an overview of the extent of mandatory continuing education practiced in the United States in 1980. According to Phillips, optometrists, nursing home administrators, certified public accountants, physicians, pharmacists, and veterinarians are among the professionals most frequently subject to continuing education requirements.

Vocational educators who teach courses related to those occupations requiring continuing education have been the beneficiaries of the CE boom. Legal requirements have forced many licensees who had not previously participated in CE programs to return to the classroom for refresher courses and the upgrading of skills. But the continuing education bonanza has also brought entrepreneurs into the field with attractively packaged courses that are sometimes offered aboard cruise ships or at exotic resort locations. Some practitioners may be attracted to such courses, not so much for their contribution to their professional development, but for their lure as a tax-free vacation.

*See also *Miller v. District of Columbia Board of Appeals and Review*, 294 A.2 & 365 (1972).

Even though vocational educators have always been strong supporters of lifelong learning, some have begun to have reservations about question a number of the assumptions underlying this approach. What assurance, for example, is there that the courses a licensee takes are in areas where weaknesses exist or where new skills need to be developed? Where is the evidence that mandatory CE ensures continued competence? Indeed, consumer groups are asking whether the cost of CE, which ultimately must be borne by the public, provides consumers with any added protection against incompetent practitioners.

Reexamination

When reexamination is proposed as a method for ensuring continued competence, people usually have in mind written and possibly performance examinations similar to those the licensee took for initial licensure. Such exams are strongly resisted by licensees, who point out that they may be suitable for graduates fresh out of training institutions, but not for mature professionals who tend to specialize. They may not, say the critics, be able to pass a general examination, but this does not necessarily mean they are not competent in their own specialties.

No state has yet required reexamination as a condition of relicensure, but a number of nongovernmental certification programs have already imposed such a requirement. The National Board of Family Practice has made reexamination every six years a requirement for those who wish to remain certified in that specialty. Some medical specialty boards, such as the National Board of Internal Medicine, encourage those who are already certified to retake the examinations on a voluntary basis.

The National Institute of Automotive Service Excellence (NIASE), which certifies auto mechanics in eight specialty areas, requires that all certified mechanics pass the current examination in their specialty area every six years. This program has created a new market for vocational education. It calls for refresher programs to help experienced mechanics get ready for tests in the specialty areas of front end, brakes, electrical systems, engine overhaul, tune up, and air conditioning. These courses are being offered by vocational schools in response to requests from employers who want to help their mechanics prepare for certification exams and from mechanics themselves who recognize that they need to brush up before the tests. For many working mechanics, taking courses at local vocational schools to maintain and upgrade their skills is a new experience. Previously, they had to take leave from their jobs to attend company-sponsored training programs, often held in distant cities. Unless employers were willing to underwrite such training experiences, the mechanics often could not avail themselves of the opportunities. The emergence of suitable vocational education courses increases the likelihood that more mechanics will be able to upgrade their skills, which in turn should mean better automotive service to consumers.

Advocates of stricter enforcement of existing standards say that it would be far more effective and less costly to concentrate on the small percentage of incompetents than to spread scarce resources over the entire licensee population. They urge that greater emphasis be placed on investigating complaints from the public, and that procedures be installed to identify "high risk" practitioners. In the health field, for example, some states require hospitals, medical societies, insurance companies, and district attorneys to let the medical board know when physicians lose their staff privileges, when malpractice suits are filed, when malpractice coverage is denied, or when licensees are convicted of a crime related to the occupation. There are now laws in several states that require licensees to report any acts of incompetence, negligence, or unprofessional conduct that they may observe involving another licensee. Failure to make such a report could result in disciplinary action, including suspension or revocation of the nonreporter's license (Law and Polan 1977).

Vigorous enforcement of existing regulations, say proponents, would result in dangerous or incompetent practitioners having their licenses suspended or revoked and marginal practitioners being required to upgrade their skills and knowledge. Once a board's tough enforcement policy became evident, practitioners would be more likely to voluntarily upgrade their level of competence because they would know that failure to do so could result in public investigation and even the loss of their right to practice.

Many recertification programs make use of simulations as well as traditional multiple choice tests to measure knowledge. A typical simulation exercise in an examination for psychiatric nursing might pose a problem concerning the most appropriate course of action a nurse might follow when admitting a patient with symptoms of maladaptive behavior. After reading a description of the patient's complaint, the examinee might be presented with a list of topics about which to elicit additional information before deciding what to do next. Some of the topics might be crucial to arriving at a sound decision, some might be of marginal importance, and some wholly irrelevant. When desiring more information about a particular topic, the examinee usually indicates this by marking a designated space with a special pen. Fluid in the pen causes hidden printing to appear, thereby providing the desired information. The test-taker is then free to pursue a number of different lines of inquiry, including asking the results of the laboratory tests.

The special pen used to make the hidden printing appear leaves a record of how many questions were asked, what kinds of information were sought, and whether the test-taker arrived at a correct diagnosis or course of action. Performance on simulations of this type may be evaluated not only in terms of the correctness of the final answer, but also in terms of how efficiently the test-taker arrived at the solution. Several medical specialty groups are currently experimenting with simulations presented by computer. If these new techniques prove to be practical and cost-effective, they could revolutionize competency assessment not only in the health field, but in other fields as well.

Peer Review

Evaluation of performance by peers through direct observation or review of records has been proposed as a procedure that might be used in place of, or as a supplement to, periodic reexamination by licensing boards. Doubts have been cast, however, as to the dependability of such evaluations. Studies show that experts often do not agree on criteria for acceptable performance; neither do they apply standards uniformly (McGuire 1977). Clearly, more attention needs to be paid to defining "acceptable performance" and to training evaluators in the use of these standards.

Enforcement

Critics of mandatory continuing education and reexamination strategies argue that such approaches are not likely to solve the problem of a lack of continued competence which is usually based not on limited knowledge, but on failure to use knowledge properly. Another fact to consider is that some licensees develop physical or emotional problems, become dependent on alcohol or other drugs, or begin to practice in areas where they are not trained. Unless these practitioners get into such serious trouble that they come to the attention of licensing boards, they are likely to continue practicing unsatisfactorily for years.

BROADER RAMIFICATIONS OF LICENSURE

Some of the impact of licensure on vocational education goes beyond the determination of which skills are to be taught. Certain regulations tend to increase unnecessarily the costs of programs and restrict entry to jobs and training programs. In light of recent legislative mandates passed to eliminate discrimination in vocational education, consideration of these broader ramifications takes on added importance.

Increased Costs

Economic benefits, rather than any need to protect the public's health, safety, and welfare, have been the reason many groups have sought licensure (Gellhorn 1976). Newly licensed groups customarily exempt those already practicing from the new standards under a so-called "grandfather" clause. Thus only current applicants must meet the stricter standards. Since it may be difficult for some of them to do so, the supply of practitioners is restricted. When any commodity or service is in short supply, its cost to consumers is likely to rise. Hence, members of the regulated group often stand to benefit financially from passage of a licensing law.

Sometimes the requirements resulting from licensure benefit owners of training institutions. In cosmetology schools, for example, the total number of hours of training required by law varies from 1,000 hours in some states to as much as 2,500 hours in others with an average requirement of 1,500 hours. The author is aware of no evidence that hour requirements have been based on empirical data regarding the actual time required to master the skills of this current trade.

There is reason to believe, however, that economic considerations may, at times, dictate training requirements. For instance, owners of proprietary cosmetology schools usually operate salons where students may practice on customers. School owners collect fees from these patrons, but the students receive no compensation for their work. Hence, it is in a school owner's interest to require a longer, rather than a shorter, period of training. Moreover, the owners can also charge students a higher tuition for the longer training program. In many states, school owners may serve on licensing boards despite this obvious conflict of interest. But even in states where they are excluded from serving on licensing boards, they continue to exert substantial influence through the political process and through close business relationships with board members.

Vocational educators in the public sector on the other hand, encounter funding problems when they are forced to increase the number of instruction hours to make sure their students meet licensure requirements. The added cost of those extra hours cannot be passed on to the students or to customers; it must come out of vocational education program budgets.

Restricted Entry to Jobs and Training

It has been alleged that boards sometimes give exceptionally difficult tests or raise the required passing score as a way to keep people out of a field. Such allegations are difficult to prove, however. One of the few studies of passing scores was done by Professor Elton Rayack (1976), an economist at the University of Rhode Island. He reasoned that if boards were manipulating test scores to limit the supply of practitioners, the results would be evident during periods of high and low employment. When jobs were plentiful, boards would have little incentive to restrict entry, but when jobs were scarce there might be a tendency for some boards to tighten their passing requirements.

In his study Rayack reviewed pass/fail scores for twelve occupations (plumber, barber, hairdresser, electrician, funeral director, embalmer, electrologist, real estate salesperson, broker, dental hygienist, physical therapist, and optician) in three New England states. He used records going back to the creation of most boards, in some instances spanning a period of nearly sixty years. In every occupation studied, he found that when employment was high, so were the passing scores. When employment was low, passing scores also tended to be low. In eleven of the twelve occupations, the differences in passing scores were statistically significant.

Since Rayack's study covered only a limited number of occupations, it would be risky to apply his findings to licensed professions or to occupations in general. Nevertheless, in this author's opinion, his study points to a possible weakness in the way that passing scores are established. It also underscores the need for greater oversight of licensing boards to make sure that their powers are not misused.

Restrictions based on laws that require completion of an approved apprenticeship program, often of six years' duration, before an applicant is even allowed to sit for the licensure examination are troublesome to vocational educators. A vocational school might well be able to turn out fully qualified electricians in four years or less, but its graduates would not be able to qualify for licensure. They might be hired by a local industry to do in-plant electrical work, or they might do estimating for a contractor, but without a license they could not use their skills to perform electrical work in the community at large.

If these students wanted to become licensed, they would have to seek admission into an approved apprenticeship program. To get into such a program is often difficult, with a great deal of competition for a limited number of

openings. The number of apprentices accepted is usually determined by the local Joint Apprenticeship and Training Committee, composed equally of contractors and union members. Quotas are established that fix the number of apprentices accepted during any year as a proportion of the total number of employed journeymen. Thus, during periods of low employment, few apprentices are accepted because this would have the effect of further increasing the supply of journeymen.

Limited Scopes of Practice

Licensing laws are restrictive in that they ordinarily define the scope of practice for various occupations. These laws not only limit the functions that may be performed but exclude other occupational groups from performing these same functions unless they, too, are licensed. Because of this restrictive situation, emerging occupational groups, anxious to establish eligibility for their members, have sought licensure even when there was no evidence that the public was being harmed by the absence of regulation. For example, in some states licensed psychologists have sought to prevent guidance counselors from providing educational, vocational, or personal counseling on the grounds that such counseling constitutes the practice of psychology. In order to gain the legal right to practice without encroaching on the turf of psychologists, guidance counselors have sought the status of a licensed occupation. Vocational educators may find similar situations where their trainees are not allowed to use the skills they have acquired because they may infringe on the scope of practice of an already licensed group.

If dental hygienists were trained to fill teeth or perform other functions now performed by dentists, they could not legally perform those functions. It would require a change in the dental law to authorize expanded functions by hygienists. Indeed, dentists could lose their licenses for permitting dental hygienists, no matter how well trained, to do anything outside of a hygienist's scope of practice. Yet when dental hygienists and other health auxiliaries have sought to have their scopes of practice expanded, they have usually encountered strong resistance. Experts from the field of dentistry have testified that they do not consider these trained auxiliaries qualified to assume new functions. To allow them to do so, they maintain, would endanger the public's health and safety. Thus the professionals who got there first and established a broad scope of practice have usually been successful in preventing other groups from encroaching on that territory.

In the early 1970s, the California legislature faced a difficult situation. New categories of health workers were seeking regulation, while at the same time existing groups, such as nurses and dental hygienists, were seeking authorization to expand their roles. The legislature found that it had no objective basis on which to make judgments about requests for expansion of functions.

The views of the one group were pitted against those of the other group; one saying it would be safe to authorize expanded functions, the other expressing serious reservations.

To break out of this impasse and to provide a more objective basis for making decisions, the legislature enacted the Health Manpower Pilot Projects Act (HMPP) in 1973. The law authorizes the Office of Statewide Planning and Development within the California State Health Department to approve projects which would train, utilize, and evaluate new or expanded roles for health workers. The goal of the legislation was to determine whether health care personnel could be utilized in new roles and whether health tasks could be reallocated to meet better the health needs of the community.*

The Act permitted scopes of practice for existing categories of health workers to be expanded beyond current legal definitions. Since 1973, 138 pilot projects have been submitted for consideration. Each applicant had to specify the tasks trainees would perform, the training facilities needed, faculty resources, and how the performance of trainees would be evaluated. Data provided by the projects which were actually carried out have resulted in recommendations to the legislature for expanded functions for nurses, dental auxiliaries, and physicians' assistants. In 1977, the Act was amended so that registered nurses, physicians' assistants, and pharmacists could be authorized to prescribe, dispense, and administer drugs. Several new occupational categories were also allowed to apply for approval of expanded functions under the law. These included veterinary, chiropractic, podiatric, and pediatric care personnel, and health care technicians.**

While these pilot projects may help to resolve some scope of practice controversies, they are not likely to help bring an end to the fragmentation which presently exists in the health care delivery system. Nor will pilot projects solve the lack of coordination among existing regulatory boards. As long as boards remain fully autonomous and have the power to adopt rules independently of all other boards, problems will continue to mount. Clearly, some new mechanism is needed to look at all the interrelated parts of the system of boards regulating health care and to make sure that consideration is given to how the decision of any one group is likely to affect the other groups involved and the system as a whole.

*See Article 18 of the California Health and Safety Code commencing with Section 429.70.

**See Office of Statewide Health Planning and Development, Division of Health Professions Development Annual Report to the Legislature, State of California, and to the Healing Arts Licensing Boards, November 1, 1979. For additional information about the HMPP program, contact Jean Ann Harlow, Chief, Health Professions Development Section, Division of Health Professions Development, Office of Statewide Health Planning and Development, 714 P Street, Sacramento, CA 95814 (916) 322-5566.

Minimum requirements for licensure and training programs have other unanticipated and restrictive effects. For example, in Pennsylvania only a tenth grade education is required for licensure as a cosmetologist, while in New Jersey a high school diploma is required. When licensed cosmetologists from Pennsylvania seek to become licensed in neighboring New Jersey, they discover that they are not eligible despite what may be years of successful practice. The New Jersey cosmetology board does not claim that these applicants are not competent to practice or that they would do harm to residents of New Jersey, but merely says that the law is very specific about the educational requirements and that it has no discretion in the matter.

Limited Interstate Mobility

Licensing is a manifestation of state's rights. Each state insists that it has the right to license whomever it pleases, without regard to what other states do. Some states refuse to recognize the licenses of other states for certain occupations, no matter how high the other states' standards may be. Some states honor the licenses of other states only if a formal reciprocity agreement exists. Still others recognize or "endorse" the licenses of other states without formal agreements. A discussion of each of these positions on interstate mobility of licensees follows.

No Recognition of Licenses Issued by Other States

These states are not anxious to license out-of-state applicants. Anyone seeking licensure must meet the current education and training requirements and pass the current licensing examination of that state. Out-of-state licensees with years of experience will usually find it extremely difficult to satisfy these requirements. For most of them it would mean ceasing practice and returning to a training institution for refresher courses.

Reciprocity

States which practice reciprocity recognize the licenses of practitioners from those states with which they have formal reciprocity agreements. These agreements are essentially bilateral compacts between states. They are possible only when boards have been granted legal authority by their legislatures to enter into such agreements and where the boards are willing to do so. State A may be willing and anxious to enter into reciprocity agreements but in order to do so, it must find willing partners. If states B and C are invited to enter into agreements with state A, but refuse to do so, there is nothing state A can do. Where states do agree to reciprocate, licensees are not required to take tests or prove that education or training requirements have been met. All that is necessary is a valid license with the reciprocating state.

Critics of the reciprocity concept feel that it is unfair to the qualified individuals who happen to live in states which either would not or could not arrange reciprocity agreements. In the absence of such agreements, individuals may find that they face many obstacles should they wish to relocate in another state. They may have difficulty meeting current entry requirements and passing the current examination. For them the best answer would be to seek licensure in a state that practices licensing by endorsement.

Endorsement

Unlike reciprocity, the endorsement approach looks only at the qualifications of the individual applicant. In effect, a state agrees to honor the license of another state once it has determined that the standards of the other state are comparable, although not necessarily equivalent, to its own. Endorsement is a unilateral decision by a state to admit licensed individuals from another state to practice without examination. In some instances, where significant differences exist, a state may require applicants to meet certain additional requirements. For example, if the applicants have passed a national examination, they would not be required to repeat it. However, if the applicants had not previously passed a performance examination, and if such an examination were required of applicants by the state where they were seeking licensure, they would usually be required to pass such an examination before their licenses would be endorsed.

Diminished Career Opportunities for Minorities and Women

Although a direct link between licensing and career opportunities for minorities and women has not been established, recently published data suggest that licensing requirements are at least partially responsible for some of the observed disparities (Fernet et al. 1978). Obtaining data on the status of minorities and women in licensed occupations has been severely hampered by prohibitions against asking applicants to state their race, ethnic background, and sex. Although originally imposed to prevent discrimination in employment, such restrictions now pose an obstacle to our understanding of the factors that may inhibit the employment, promotion, and licensing of minorities and women.

In 1978, the Department of Licensing and Regulation in Michigan conducted a study of minority representation in fifty-five occupations licensed by that state (Fernet et al. 1978). Using a variety of indirect assessment techniques such as first names, surnames, and photographs, the researchers developed estimates of the proportion of women and minorities in certain licensed occupations. Drawing on census and association data, they also developed estimates of the proportion of women and minorities in those same occupations nationally. Findings for selected occupations revealed that relatively few minorities or women had been licensed either in Michigan or in the nation as a whole.

- Skilled trades In the skilled trades, in occupations such as electrician and plumber, women had almost no representation. Out of the nearly 12,000 electricians licensed in Michigan, only two were women. No females could be found among the 8,200 licensed plumbers in the state. No data were available on the number of blacks or other minorities in either occupation.
- Service occupations In certain service occupations, such as barbering and cosmetology, the distribution by sex tended to follow the traditional pattern. About 95 percent of all licensed barbers in Michigan were male, while nearly 97 percent of the cosmetologists in the state were female. However, the number of minority licensees in barbering was found to be 24.2 percent, or double the number reported eight years earlier.
- Professional and related occupations A review of minorities and women in selected occupations showed the following:
 - Architect In Michigan, 1.1 percent of the architects were women. Nationally, the figure is 4.4 percent.
 - Dental hygienist In 1970 about 4 percent of the nation's dental hygienists were from minority groups. Yet in 1978, the proportion in Michigan was only 1.5 percent. More than 99 percent of all dental hygienists in the state were women.
 - Pharmacist In Michigan, 4.6 percent were from minority groups, the same as the national average; and 16.9 percent were women.
 - Medical doctor Michigan, with 15.5 percent of the MDs from minority groups, exceeded the national average of 9.2 percent. However, women were not as well represented in Michigan (7.6 percent) as in the nation as a whole (11.2 percent).

Although these data clearly indicate that minorities and women are underrepresented in nearly all of the licensed occupations studied, the disparity cannot be attributed to licensing barriers alone. The Michigan report recognized that there are a variety of factors at work, including inadequate information about career opportunities, and the lack of role models for minorities and women. Until recently, economic factors have often determined which individuals had access to training and higher education. Also, role stereotypes have discouraged women and men from entering what were perceived to be male or female occupations. (For example, few men have become dental hygienists, and few women have become optometrists despite the good earning potential of these occupations.)

Efforts to pinpoint the precise role of licensing as a barrier to career advancement by minorities and women have not been very successful. The problems identified in the Michigan report, while not giving conclusive evidence

that licensing requirements constitute a major barrier to the licensure of minorities and women, suggest that all licensure requirements should be reexamined to determine their relevance to the purpose of licensing. The report called for better ways to make minorities and women aware of opportunities in licensed occupations. It urged that special counseling programs be instituted to provide support and encouragement to minorities and women seeking the education and experience required to qualify for licensing. Finally, the report supported the establishment of improved data systems to enable human resource officials to study all aspects of licensure as it relates to minorities and women.

SUMMARY OF POLICY CONSIDERATIONS AND RECOMMENDATIONS

It should be evident from the foregoing discussion that licensing may have a profound impact on vocational education programs, yet it seems to the author that vocational educators have frequently failed to appreciate the significance that licensure policy decisions might have for their own activities. Too often they have remained aloof while others made crucial decisions.

In addition to an information-sharing role, vocational educators are increasingly involved in efforts to remove barriers that stand in the way of developing the full potential of young people and adults in our society. As vocational educators assert their right to be involved in the decision process, they are likely to be called on by legislators, educational authorities, and licensing boards to take positions on new licensing proposals and on proposed changes to existing laws. They will have opportunities to comment on the appropriateness of licensure requirements, on the fairness of examinations, on the reasonableness of practice standards, and on the soundness of proposed approaches for ensuring continued competency. The following are some specific suggestions addressed to vocational educators for taking a more active role in licensure considerations.

Strive to be better disseminators of information to students and prospective students about licensure and the role it plays in the career decision-making process. Contact available sources, such as those listed in the appendix, to keep abreast of licensing facts and issues that affect vocational education.

Campaign for appropriate and valid licensing requirements and support the development of competency-based assessment procedures. Entry requirements should be scrutinized by vocational educators for their appropriateness and validity. Those requirements that serve no useful purpose, are not job related, or are unduly restrictive should be challenged. Legislators should be made aware that in the long run the public must pay the cost of such unnecessary or excessive requirements. Whenever the supply of practitioners is restricted, higher costs for services often result. When training time or experience requirements are excessive, licensees may charge more for their services to meet their investment in training. Excessive training requirements will increase the cost of providing instruction in publicly supported institutions, and these higher training costs will be passed on to the public.

Vocational educators recognize that individuals differ in how long it takes them to achieve mastery in various occupations. They should make legislators and licensing boards aware of the inequities and higher costs occasioned by inappropriate training requirements. They should encourage the development of assessment procedures which make it possible for students to demonstrate that they possess the knowledge and skills required for safe performance.

Seek to prevent further proliferation of unnecessary licensing. Examine critically all new licensing proposals before the legislature. At hearings or in letters to legislators, raise questions such as: Would strengthening and/or enforcing existing statutes relating to unfair trade practices remedy the problem? Would establishing state standards and having state inspectors enforce these standards offer a solution? Would licensure of the establishment, rather than individuals, provide a remedy? (For example, while a restaurant may be licensed and inspected for cleanliness, the cooks and food service personnel may not be subjected to regulation.)

Urge consideration of alternative methods of regulation. As a general principle, the degree of regulation should be no more restrictive than what is required to protect the public's health, safety and welfare. Since licensing is clearly the most restrictive regulatory approach, it should be the remedy of last resort. If regulation of individuals is deemed essential, registration and certification should be considered. Where the threat to life, health, and safety are relatively small and where other forms of redress are available to the public, compiling a roster of practitioners without setting specific standards might be adequate. Where it seems desirable to help consumers identify qualified practitioners, states could set standards and allow those who qualify to use a specified title. Or, states could adopt standards set by some nongovernmental group, but use state enforcement powers to restrict the use of a title to those who have met the standards.

Although a certification program may have no basis in law, it may still have a determining effect on vocational curricula. Once a certification program gains acceptance among employers, it is not uncommon for them to specify in their help wanted ads that "only certified applicants need apply." Those who cannot meet certification standards may find themselves excluded from the better paying jobs. Vocational educators, who understandably want to place their students in the best jobs, will adjust their curricula to meet the standards set by the certification agency.

Help repeal regulatory laws that are no longer necessary or do not accomplish their purposes. One way to do this is by following the activities of "sunset" committees to learn which licensing boards are under review. If any of the boards under review regulate occupations which fall within the scope of vocational-technical education, vocational educators may wish to make their views known. If they do not feel there is any sound reason for occupations to be regulated, they should submit evidence to that effect and offer to testify at public hearings. Even in

the absence of sunset legislation, there is no reason for vocational educators to remain silent if they feel that the public interest is not being served by a regulatory law. Indeed, they have a responsibility to speak out when they believe that regulating an occupation is interfering with the training or utilization of skilled practitioners.

Support efforts to facilitate interstate mobility of licensees. Reciprocity requirements have been frequently enacted to exclude practitioners from other states, thereby preserving the job market for in-state licensees. This view often overlooks the fact that such restrictions on mobility can work both ways. Some vocational educators may need to rethink their attitudes on such questions and work for the removal of arbitrary restrictions that make it difficult for those whom they have trained to seek employment in other states where better job opportunities may exist.

Support efforts that will help licensed practitioners keep abreast of new developments and maintain their skills. An awareness of the need for continual self-development should be inculcated during training, and students should be encouraged to avail themselves of continuing education opportunities. Where such opportunities are lacking, vocational educators should endeavor to make those responsible for policy aware of this need and suggest practical solutions. As one method of helping practitioners identify areas of weakness, vocational educators may wish to institute programs that will permit self-assessment. Such programs permit practitioners to voluntarily take examinations covering recent developments in their fields. They may take the exams in the privacy of their home or office with complete assurance that no one, except themselves, would ever know how they performed on the test. Each participating practitioner receives detailed feedback about every question and suggestions regarding ways to overcome any weaknesses that may have been revealed. Thus self-assessment may help individuals channel their voluntary continuing education activities into areas which are likely to be productive and contribute to competencies needed to protect the public's health, welfare, and safety. When mandatory continuing education is suggested as a way to ensure continued competence, vocational educators may wish to raise questions as to the efficacy of this approach.

Encourage policies which foster articulation within various occupational fields. As presently structured, occupational licensing often inhibits the development of career ladders. For example, a nurse's aide who wishes to become a licensed practical nurse usually must begin that training with novices. Rarely will the student be given credit for formal training or experience gained in the previous job. The same holds true when a licensed practical nurse aspires to become a registered nurse. Vocational educators should make known their views on such inefficient and wasteful practices. Whenever possible, training programs should be developed in such a way that students will receive credit for knowledge, skills, and experience acquired during an earlier phase of their careers. The legislature should place all related occupations under a single board and mandate an articulated program, or some other mechanism should be devised to ensure articulation across fields.

Challenge restrictions in existing licensing laws which prohibit the training and utilization of auxiliaries. In efforts to protect their "turf," many licensed occupational groups have incorporated into their regulations stipulations that make it illegal for anyone except designated licensed professionals to perform any part of certain jobs. In dentistry, for example, vocational educators have demonstrated that they can turn out skilled auxiliaries who can perform certain complex dental functions. However, these auxiliaries cannot be utilized by dentists until such time as licensing laws are changed to permit it. In 1974, the California legislature enacted legislation establishing four auxiliary categories, but four years later the state dental board had not taken any steps to implement the law. Vocational educators should be alert to such tactics and call them to the attention of their elected representatives.

Propose or support research efforts to increase knowledge about the effects of licensure on vocational education. Questions that might be addressed follow:

- How relevant are licensing requirements to the occupations to be regulated? Are requirements based on studies which have identified knowledge and skills that are critical for protecting the health and safety of the public?
- How do licensure requirements for the same occupation vary across states?
- How do income levels of licensed and nonlicensed occupations compare when training and experience requirements are similar?
- What impact has licensure had on vocational-technical curricula?
- What roles have boards played in establishing requirements for vocational programs?
- What knowledge, understanding, and attitudes do vocational educators and administrators have with respect to occupational licensing? With respect to certification?
- What have "sunset" reviews revealed about the need for and effectiveness of licensing in various trade and technical occupations?
- Have public members on regulatory boards shown sensitivity to public interest issues such as the impact of excessive entry requirements?
- To what extent have state licensing laws been a barrier to the training and utilization of skilled practitioners, such as paraprofessionals in health related occupations?

- To what extent do licensure exams in skilled trade and technical fields meet the standards set forth in the Uniform Guidelines adopted by the Equal Employment Opportunity Commission, the U.S. Civil Service Commission, the U.S. Department of Labor, and the U.S. Department of Justice?
- Is there some rational or empirical basis for determining when and how much experience should be required as a condition for licensure?
- What type of data system would permit the systematic study of licensure as it affects minorities and women?

Only by seeking answers to questions such as these can vocational educators be more effectively involved in the licensure proceedings in the United States. Along with being more involved in such efforts comes the responsibility to redress any shortcomings that may be present in the system. This is clearly the mandate that confronts vocational educators who are concerned about current licensure practices.

APPENDIX:
**SOURCES OF INFORMATION ABOUT LICENSING AND
CERTIFICATION**

National Governmental and Nongovernmental Agencies

Ben Shimberg
Center for Occupational and
Professional Assessment
Educational Testing Service
Princeton, NJ 08541
(609) 921-9000

Paul Pottinger
National Center for the Study
of Professions
1527 New Hampshire Avenue
Washington, DC 20036
(202) 232-2204

Doug Roederer
Council of State Governments
Ironworks Pike
Lexington, KY 40578
(606) 252-2291

Dennis Falk
National Commission for
Health Certifying Agencies
1101 30th Street NW
Washington, DC 20007
(202) 333-9300

Karen Greene
Employment and Training
Administration
U.S. Department of Labor
301 D Street NW
Washington, DC 20213

Ken Hotard
National Conference of State Legislatures
1405 Curtis Street
Denver, CO 80202
(303) 623-6600

Federal Trade Commission
Bureau of Economics or
Division of Professional Services
6th and Pennsylvania Avenue NW
Washington, DC 20580
(202) 655-4000

State Occupational and Professional Licensing Agencies

ALASKA

Don Hostak, Director
Division of Occupational Licensing
Department of Commerce
and Economic Development
Pouch D
Juneau, AK 99811
(907) 465-2535

CALIFORNIA

Department of Consumer Affairs
State and Consumer Services Agency
1020 N Street
Sacramento, CA 95814
(916) 445-4465

COLCRADO

Gail Klapper, Executive Director
Department of Regulatory Agencies
1525 Sherman Street, Room 116
Denver, CO 80203
(303) 839-3304

DELAWARE

Kenneth Walls, Director
Division of Business and Occupational Reg.
Department of Administrative Services
O'Neill Building
Dover, DE 19901
(302) 678-4525

DISTRICT OF COLUMBIA

Robert Lewis, Director
Department of Licenses,
Investigations and Inspections
605 G Street, NW
Washington, DC 20001
(202) 727-6904

FLORIDA

Nancy Kelley Wittenberg, Secretary
Department of Professional and
Occupational Regulation
2009 Apalachee Parkway
Tallahassee, FL 32301
(904) 488-6602
GEORGIA

Michael Fowler, Joint Secretary
State Examining Boards
Office of Secretary of State
166 Pryor Street, SW
Atlanta, GA 30334
(404) 656-3900

HAWAII

Dick Okaji, Licensing Administrator
Professional and Vocational
Licensing Division
Department of Regulatory Agencies
1010 Richards Street
Honolulu, HI 96813
(808) 548-6520

IDAHO

Marvin D. Gregersen, Chief
Bureau of Occupational Licenses
Department of Self-Governing Agencies
2404 Bank Drive, Room 312
Boise, ID 83705
(208) 384-3233

ILLINOIS

James Nowlan, Acting Director
Department of Registration
and Education
320 W. Washington Street
Springfield, IL 62786
(217) 785-0800

IOWA

James R. Faust, Director
Licensing and Certification
Department of Health
418 Sixth Avenue
Des Moines, IA 50319
(515) 281-4401

KENTUCKY

Roy Thurman, Director
Division of Occupations and Professions
Bureau of Administrative Services
Department of Finance
Twilight Trail, Building A
Frankfort, KY 40601
(502) 564-3296

MAINE

Mary Ellen Peaslee, Director
Central Licensing Division
Department of Business Regulation
Stevens School
State House
Augusta, ME 04333
(207) 289-2217

MARYLAND

Ejner J. Johnson, Secretary
Department of Licensing and Regulation
One S. Calvert Street
Baltimore, MD 21202
(301) 383-5626

Ethel U. Stern, Coordinator
Boards and Commissions
Department of Health and
Mental Hygiene
201 W. Preston Street
Baltimore, MD 21201
(301) 383-2709

MASSACHUSETTS

Caroline M. Casey, Acting Director
Division of Registration
Executive Office of Consumer Affairs
100 Cambridge Street
Boston, MA 02202
(617) 727-3076

MICHIGAN

William S. Ballenger III, Director
Department of Licensing and Regulation
320 N. Washington
P.O. Box 30018
Lansing, MI 48909
(517) 373-1870

MISSOURI

Oliver F. Overkamp, Director
Division of Professional Registration
Department of Consumer Affairs,
Regulation and Licensing
P.O. Box 1335
Jefferson City, MO 65102
(314) 751-2334

MONTANA

Ed Carney, Director
Department of Professional and
Occupational Licensing
42-1/2 N. Last Chance Gulch
Helena, MT 59601
(406) 449-3737

NEW JERSEY

Gus Lembo, Deputy Director
Division of Consumer Affairs
Department of Law and Public Safety
1100 Raymond Boulevard
Newark, NJ 07102
(201) 648-4010

NEW YORK

Raymond D. Salman, Director
Division of Professional Licensing Services
Education Department
Cultural Education Center, Room 3021
Albany, NY 12230
(518) 474-3830

NORTH CAROLINA

Thad Eure, Secretary of State
State Capitol
Raleigh, NC 27611
(919) 733-3433

NORTH DAKOTA

Bob Brady, Assistant Attorney General
Licensing Department
Office of Attorney General
State Capitol, 1st Floor
Bismarck, ND 58505
(701) 224-2219

OREGON

Kristine Gebbie, Administrator
Health Division
Department of Human Resources
930 State Office Building
Portland, OR 97201
(503) 229-3072

PENNSYLVANIA

Stanley Miller, Commissioner
Bureau of Professional and
Occupational Affairs
Department of State
Transportation and Safety Building, Room 618
Harrisburg, PA 17120
(717) 787-8503

RHODE ISLAND

Thomas J. Caldarone, Jr., Director
Department of Business Regulation
100 N. Main Street
Providence, RI 02903
(401) 277-2246

SOUTH DAKOTA

Bruce Farus, Director
Division of Professional and
Occupational Licensing
Department of Commerce and
Consumer Affairs
State Capitol
Pierre, SD 57501
(605) 773-3177

TENNESSEE

G. C. Warren, Director
Regulatory Boards
Department of Insurance
506 Capitol Hill Building
Nashville, TN 37219
(615) 741-3449

Ed Johnston, Director
Health-Related Boards
Department of Public Health
R. S. Gass State Office Building
Nashville, TN 37206
(615) 741-7293

UTAH

Paul Fordham, Director
Registration Division
Department of Business Regulation
330 E. Fourth South Street
Salt Lake City, UT 84111
(801) 533-5711

Eugene S. Lambert, Director
Department of Business Regulation
330 E. Fourth South Street
Salt Lake City, UT 34111
(801) 533-5523

VERMONT

Jean B. Baldwin, Deputy Secretary of State
Director of Professional Licensing
Division of Licensing and Regulation
Office of Secretary of State
Pavilion Office Building
Montpelier, VT 05602
(802) 828-2363

VIRGINIA

Ruth J. Herrink, Director
Department of Commerce
2 S. Ninth Street
Richmond, VA 23219
(804) 786-2161

WASHINGTON

R. Y. Woodhouse, Director
Department of Licensing
Highways-Licenses Building
Olympia, WA 98504
(206) 234-6915

Cheryle Lux Durye, Assistant Director
Business Professions Administration
Department of Licensing
Highways-Licenses Building
Olympia, WA 98504
(206) 234-1396

WISCONSIN

Ann Haney, Secretary
Department of Regulation and Licensing
1400 E. Washington Avenue
Madison, WI 53702
(608) 266-2112

PUERTO RICO

Administrative Officer
Examiners Board
261 Tanca Street
San Juan, PR 00904
(809) 725-7060

VIRGIN ISLANDS

Josephine Petersen, Director
Division of Licensing
Consumer Services Administration
P.O. Box 2515
St. Thomas, VI 00801

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